

REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

Claims 1-6, 14, 15, 17, 18, 20-22, 30, and 33, and 35-38 have been amended. Claims 7-13, 16, 19, 23-29, and 31-32, 34 have been canceled because they are either directed to a non-elected invention or no longer desired. Claims 1-6, 14, 15, 17, 18, 20-22, 30, and 33, and 35-38 are currently pending.

Applicant's representatives Tiep Nguyen and Mike Morgan, thank the examiner for the Office Interview dated April 21, 2005.

Rejection of claims 1-6, 13-22, 30, and 33-38 under 35 USC 112, second paragraph, as being indefinite

Claim 1

In the Final OA, the Examiner took issue with the claimed limitation, "substantially real time." The Examiner is respectfully directed to MPEP 2173.05(b), which provides that the term "substantially," often used in conjunction with another term to describe a particular characteristic of the claimed invention, has been held to be *definite* by the Court when one of ordinary skill in the art would know what was meant. Indeed, one of ordinary skill in the art would understand what is meant by the phrase "substantially real time" from a reading of the disclosure. Particularly, real-time posting is described and discussed throughout the specification (see, e.g., pp. 6, 67, and 68).

In the Office Interview, the Examiner suggested the removal of the term “substantially.” Therefore, in the interest of expediting the prosecution of the application, such term has been removed from the claims as it relates to “real-time.” Also, as stated in the Office Interview, to assist the Examiner with an understanding of the conventional definition for “real-time,” attached herewith is a definition of such terms from an online encyclopedia relating to information technology. For instance, from www.techweb.com, “real time” is defined as follows:

“A business information system (transaction processing system) that updates databases immediately after an order or other transaction has been entered is sometimes called a realtime system. This earlier use of the term harks back to when computers were becoming fast enough to respond to a query for data within a few seconds. In this context, the term "realtime" might be mentioned to imply any system that provides an immediate response.”

Thus, “real-time” processing, as stated in claim 1, should be distinguished from “batch” processing, wherein transactions are collected and processed against the master files (master files updated) at the end of the day or some other time period instead of processing each transaction as soon as the transaction is received.

Accordingly, it is requested that this rejection be withdrawn because the claims do comply with 35 USC 112, second paragraph – at least with regard to the claimed limitation, “substantially real time.”

The Examiner further took issue with the claimed limitation, “posting of the ready-for-posting messages...can be interspersed” because it is not a positive recitation that posting actually occurs and does not limit the claims. To further clarify the invention and expedite the prosecution of the application, claim 1 has been amended to indicate an ability to provide posting in real-time and interspersable with the processing of the second type of messages.

Accordingly, it is requested that this rejection be withdrawn because the amended claims do comply with 35 USC 112, second paragraph – at least with regard to the asserted indefiniteness due to the original phrase “can be.”

The Examiner also took issue with the claimed limitation “scheduling a next time for a next activity to be occurred” in claim 1. Accordingly, claim 1 has been amended for further clarification. Support for this claimed limitation can be found in at least pp. 63, 64, 68, 108, and 109. Therefore, it is respectfully requested that this rejection be withdrawn.

Claim 3

Regarding claim 3, it has been amended per the Examiner’s suggestion to remove indefiniteness due to a typographical error.

Rejection of claims 1-6, 13-22, 30, and 33-38 under 35 USC 101 as being directed to non-statutory subject matter

This rejection is respectfully traversed because it relies on a non-precedential Board decision in *Ex parte Bowman*, 61 USPQ2d 1669. The Examiner attempted to negate the fact that *Bowman* is non-precedential by stating that such decision is only used for content and reasoning. It is respectfully submitted that, indeed, *all* legal decisions are relied on for their *content and reasoning*, and only if they are precedential. The undersigned representative fails to see how the Examiner can rely on *Bowman*’s content and reasoning when it is non-precedential. Furthermore, the patent in question in *Bowman* purposely did not recite any system or structure;

whereas, the present invention actually recites a processing system with user interfaces, dbb databases, etc. Thus, even the content and reasoning of *Bowman* is not applicable here.

However, in the interest of expediting the prosecution of the present invention, the claims have been amended, as suggested by the Examiner, to recite “computer-implemented” methods, which are supported throughout the original disclosure. Furthermore, also as suggested by the Examiner, the claims have been amended to indicate a computerized system performing at least some of the claimed limitations. Support for such amendment can be found throughout the specification. Therefore, it is respectfully requested that this rejection be withdrawn.

Rejection of claims 1-6 and 13-22 under 35 USC 103(a) by Kling et al. (5,878,215) in view of Northington et al. (6,128,602)

Claim 1

Claim 1 is directed to a method for posting transactions in real-time and account projection to determine financial status of the account. The Examiner asserted that the account projection features of the claim – namely, the “retrieving all transactions...,” “first calculating...,” “second calculating,” and “generating an automatic adjustment...” - are shown in Northington et al. and that they are inherent to the accounting function of maintaining an account balance based on a new receivable amount. This assertion is respectfully traversed for at least the following reasons:

The Examiner’s cited sections in Northington et al. merely discuss the periodic generation of reports (col. 13, ll. 7-20), the ability to retrieve information from a database (col. 7, ll. 28-44),

and the ability to update a database (col. 9, l. 42 – col. 10, l. 13), and the updating of credit requests (col. 13, ll. 40-59). Thus, Northington et al. do not address the key point of the claimed invention – the retrieval of past transactions to process a new transaction. For example, Northington et al. in col. 13, ll. 40-59 merely discuss a change in an account credit limit and the transmission of such credit-limit change to a database for storage without any further discussion on how such credit-limit change can be used for account projection. The Examiner may have used such discussion as a basis for asserting that the claimed features are inherent to the accounting function of maintaining an account balance based on a new receivable amount. However, this inherent accounting function is not the same as the claimed account projection.

To further distinguish the claimed account projection from Northington et al. and any “inherent” accounting function, claim 1 has been further amended to provide a second calculation of a second new balance based on both a first new message/transaction and those transactions that were already included in the first calculation, wherein the second calculation takes into account the effective transaction date of the first new message/transaction relative to the other transactions already included in the first calculation. Support for this amendment can be found in at least pp. 90-93 of the specification.

In the Office Interview, the Examiner requested that claim amendments and arguments against the cited references of record be accompanied with examples to further explain the various claimed methods and features. Therefore, the examples provided below should not be construed as the only examples that are applicable to the claimed methods and features.

In claim 1, the claimed features stated in parts a), b), and c) are ~~self-explanatory~~self-explanatory in light of the specification.

The aforementioned amendment to claim 1 takes into consideration of the processing of a new transaction that for, whatever reason, has an effective date of some time in the past; for example: a) the new transaction is arrived and processed by the system from some place that only has paper processing, and it took the new transaction a week to arrive; or b) the new transaction is disputed by someone and a credit for the transaction is then given with an effective date of the disputed new transaction. Conventional systems and methods generally ignore the fact that such new transaction may have an effective date from the past; however, that fact can be important, for example, from an accrued interest or fees point of view. For instance, if a credit (i.e., first new transaction/message) to an account with an effective date of two weeks ago is processed, the account should also be given a credit for the interest that was accruing for those two weeks; likewise, if a purchase (i.e., the first new transaction/message) against the account was effective two weeks ago, the interest against the account should have accrued from back then. Furthermore, a fee may have been generated against the account because the customer was just short of the minimum payment. But now a credit with an effective date of two weeks ago means that the customer was not short of the minimum payment.

With the claimed account projection, a first calculation can be done without the early-dated first new transaction. Thus, in part d1) of claim 1, for example, all of the ready-for-posting transactions relating to an account with effective transaction dates within, e.g., a three-month

period from January 2005 through March 2005, are identified. Then, in part d2) of claim 1, for example, a first balance for the account is calculated.

Next, a second calculation is done with the early-dated first new transaction included. Thus, in part d3) of claim 1, for example, an early-dated ready-for-posting transaction with an effective date within the three-month period, e.g., January 15, 2005, is identified. Then, in part d4), a second balance is calculated for the account with the new transaction inserted or interleaved, sorted according to its effective date.

In part d5) of claim 1, when a comparison is done for the two calculations, an automatic adjustment can be made to show that an interest is owed to, or due for, the account. Thus, for example, the calculations according to the first calculation may have shown a late fee due, whereas the newly transaction with an effective date one month in the past causes the second calculation to show no late fee due. If the account is already charged the fee on the last statement, a credit can then be generated. If the fee was simply generated internally during the current statement period but not yet charged to the customer, the fee can then be canceled.

It is respectfully submitted that Northington et al. do not disclose such account projection for its credit-limit change requests or any other transactions. As asserted by the Examiner, at best, Northington et al. discuss an adjustment of the account as the mere difference between the previous account balance when at maximum credit limit and the value of the new credit limit. Thus, there is neither a double calculation of the account nor a comparison between the two calculations.

Claim 1 is further distinguished from Northington et al. by the following claimed limitations,

“d7) scheduling a next action on the first account by:

d71) performing in real time the next action on the first account upon identifying a second new ready-for-posting transaction that is related to the first account, wherein the second new ready-for-posting transaction is identified prior to an expiration of a predetermined second time period subsequent to the first updating; and

d72) performing in real time the next action on the first account upon the expiration of the predetermined second time period subsequent to the first updating, wherein the expiration is reached prior to the second new-ready-for-posting transaction being identified;

d8) repeating the scheduling the next updating of the first account for updates of the first account subsequent to the second updating.”

The above limitations describe a process of the present disclosure wherein as stated in d71) of claim 1, for example, an account is brought up-to-date when there is an activity for that account. That activity may be a purchase or credit transaction (i.e., “the second new ready-to-posting transaction”) that comes in for an account, or it may be a customer or agent accessing an account through the customer service interface. Thus, the account will be up-to-date in real-time with respect to such purchase or credit, and such transaction triggers the account update with other transactions that accrue, such as interest or generated fees (e.g., late payment fees) since the last account update. However, as stated in d72) of claim 1, for example, if no such transaction is retrieved prior to a set time period (i.e., “the predetermined second time period”) account updating will proceed anyway.

In another example, consider the system processing a purchase example for an account on May 1. To save resources, we do not want the system to have to touch that account again until absolutely necessary (unlike traditional batch account processing, which touches all active

account every night). So we generate a next activity date for the next known activity where we will have to touch the account – in this example, it will be to generate a statement on May 10. If no new transactions or queries occur for that account before May 10, we will not touch the account until that statement generation, and we will have saved resources. If a query or transaction occurs, say on May 5, we will process the transaction and again set the next activity date to May 10 for the statement generation.

Northington et al., col. 14, ll. 29-67, as previously cited by the Examiner merely discusses the ability of a user to schedule a transaction in the future, namely, “a given date X.” In contrast, the claimed invention provides an account update to occur both when there is *no additional transaction* and *when an additional transaction triggers it* in the future, and the process is repeated; for example, when an additional transaction triggers it, the next action for the account will happen a predetermined second time period after the triggered additional transaction.

Claims 33-34

Claim 34 has been canceled, and its claimed limitations have been incorporated into claim 33. It is respectfully submitted that a “credit limit” is not a “balance” in accordance conventional definition in the art. As understood in the art, a “balance” refers to a value representing, for example, the total fees, total interest owed, total money owed, total money owed from a set of accounts year-to-date, etc. In other words, a “balance” is a *calculated* sum of some set of numbers, and, in particular, it is NOT a *set* parameter. Therefore, while an account may

have a credit limit amount, there is no such thing as a “credit limit balance” – only an “available credit amount”, as calculated below:

$$\text{Credit Limit} = \text{account balance} + \text{available credit}.$$

Furthermore, there is no mention of a third balance as stated in claim 34, which is now incorporated into claim 33.

Claims 35 and 36

These claims describe the balance aging process with special data types and relationships between multiple balances. This balance aging process is different from the balance contribution process in the now amended claim 33. For instance, for an account having a Balance A, Balance B, and Balance C, at some point in time, the claimed invention provides for the moving of an existing value of Balance A to Balance B, and the existing value of Balance B to Balance C. Support for these claimed features can be found in at least pp. 111-115 of the specification. Claims 35 and 36 have been amended to further ensure the claimed balance aging process is clear and distinguishable from the references of record, whereby the balancing aging process is performed based on a setting up an “aging chain of balances”. It is respectfully submitted that such claimed set-up of an aging chain of balances and the resulting balancing aging process are neither disclosed nor made obvious by the references of record. Indeed, the Examiner provided no explanation as to why these claims are rejected, except that they are rejected for the same reasons as provided for claims 33 and 34, which are directed to different limitations.

As a further elaboration, according to the claimed invention, the concept of an aging chain is created as a basic data structure. Conventionally, when the business decides it needs to change the aging or add aging to a new field, a programmer must code by hand how that aging will work. With the claimed aging chain, someone may simply tell the system, for example, that four Data Elements called Current-Fees, Fees-Last-Week, Fees-Two-Weeks-Ago, and Fees-Three-Weeks-Ago form a week-based aging chain, in that order. The custom programming only needs to worry about updating Current-Fees, not about aging. Because the system understands aging chains, every Sunday morning after midnight, it will move the value from Fees-Two-Weeks-Ago to Fees-Three-Weeks-Ago, then move Fees-Last-Week to Fees-Two-Weeks-Ago, and then Current-Fees to Fees-Last-Week. Lastly, it will set Current-Fees to 0 or to a different specified default value. It will do this for all specified aging chains, freeing the programmer to worry only about updating the core value and only worry about aging to the extent of specifying the needed chains.

Claims 37 and 38

The Examiner indicated that it would have been obvious to refer to historical activity within the account period; yet, the Examiner made no mention of the claimed “periodic account” and where is such account disclosed or made obvious in the references of record. As stated in the specification, e.g., in pp. 118-119, a periodic account is defined as an account in which its balances are re-initialize after each predetermined period (e.g., re-initialization is done every day for a periodic account having a period of one day). Furthermore, claim 38 provides for different

time periods for different periodic accounts. It is respectfully submitted that there is no mention of the claimed periodic accounts or associated different time periods in the references of record.

To further elaborate, consider examples where one daily and one monthly periodic account are defined, both of which contain at least the Data Element called Total-Purchases. The system will add every purchase amount to the Total-Purchases field in both accounts. The periodic part comes into play when the specified period is reached. With the daily account, at midnight, the system would automatically take a snapshot of the daily periodic account's fields and store them away for safekeeping. It would then reinitialize each Data Element to its specified default value. For Total-Purchases, it would reset it to 0. The monthly account would continue accumulating the Total-Purchases value until the end of the month. At that point, the system would take a snapshot of the monthly periodic account for safekeeping and reset its values. So the periodic accounts provide a built-in mechanism for accumulating desired values and keeping snapshots of them according to a specified period.

Conclusion

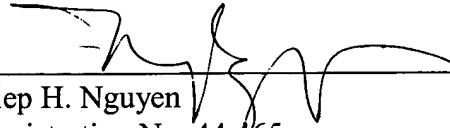
For at least all of the above reasons, it is respectfully submitted that the present invention is neither disclosed nor suggested by the references of record, and the claims now pending patentably distinguish the present invention from the references of record. Accordingly, reconsideration and withdrawal of the outstanding rejections and an issuance of a Notice of Allowance are earnestly solicited upon the filing of an RCE.

Respectfully submitted,

Date: 5/2/2005

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realtime

As fast as required. A realtime system must respond to a signal, event or request fast enough to satisfy some requirement. Realtime often refers to process control and embedded systems. For example, space flight computers must respond to changing conditions in order to keep the rocket ship on course. Industrial robots must respond within a certain time in order to keep the assembly line moving at full speed. Antilock brakes and other driving assist systems must respond to changing road conditions immediately in order to benefit the driver and vehicle.

Videoconferencing requires realtime systems that can transmit video across the network and display it at the other end as quickly as the camera is recording it. Gaming is a realtime application. The system must respond to the user's inputs and render video frames on screen fast enough to simulate realistic motion.

A business information system (transaction processing system) that updates databases immediately after an order or other transaction has been entered is sometimes called a realtime system. This earlier use of the term harks back to when computers were becoming fast enough to respond to a query for data within a few seconds. In this context, the term "realtime" might be mentioned to imply any system that provides an immediate response.

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